CVR-65 BETACAM SP STUDIO PLAYER

with *AST*™ automatic tracking

General

Originally developed for ENG, the Betacam format is used today as the acquisition format for all types of production. But with new applications came demands for improved picture and sound quality, together with longer play times. The Betacam SP format was developed to meet these demands and provide playback compatibility, while maintaining the reliability and durability of the original format.

The CVR-65 studio player delivers all the performance of the Betacam SP format with features such as AST™ automatic tracking, dynamic motion control, viewable pictures in shuttle, a built-in time base corrector and a time code reader.

The CVR-65 is compact, lightweight and can be installed in either standard 19-inch EIA racks or consoles in studios and OB vehicles.

Applications

The CVR-65 provides high-quality ENG/EFP and broadcast applications, using either oxide or metal particle tape. It is also ideal for feeding both composite and component editing systems. Interfaces are provided for control of the CVR-65 by other VTRs, an Ampex VRC-2 video recorder controller or an ACE™ or ACE Micro™ editor.

An informative Systems and Accessories Guide has diagrams, options and accessories to help you configure a Betacam system to meet your specific production requirements. You can get a copy from your Ampex sales office or authorized Ampex dealer.

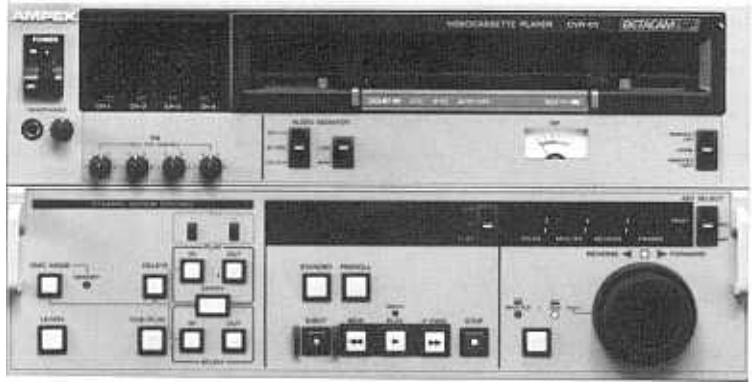
Service and Support

Prompt technical support, speedy spare parts delivery and responsive field service are available worldwide for the Ampex CVR-65 studio player.

Features

- ☐ AST™ automatic tracking allows variable speed playback within a range of −1 to +2 times play speed with broadcast quality pictures
- ☐ Built-in time base corrector provides broadcast quality video while eliminating any other signal processing requirements
- ☐ TBC remote control interface
- ☐ High speed picture-in-shuttle up to 5x normal speed in color, 24x in monochrome, either forward or reverse
- ☐ Jog function allows tape movement in either direction, one frame at a time
- ☐ Versatile editing interfaces:
  - —with a CVR-75 or similarly controlled VTR
  - —with an Ampex VRC-2 video recorder controller
  - —with an ACE™ or ACE Micro™ editor
- ☐ Dynamic Motion Control: the CVR-65 can memorize rehearsed playback speeds over −1 to +2 times normal speed, and reproduce them in subsequent playback
- ☐ Versatile Time Code System
  - —Vertical Interval Time Code (VITC) and SMPTE/EBU longitudinal track format
  - —Built-in time code reader
- ☐ Built-in character generator
  - —Time code, system status or setup menus displayed in video monitor output
- ☐ Two composite outputs
- ☐ Two dub/component outputs:
  - —Y, R-Y, B-Y or Compressed Time Division Multiplexed (CTDM) output for high-quality component editing
- ☐ Color framing: superior color framing operation, using both the CF flag and the Vertical Interval Subcarrier (VISC) system when operating in a composite environment
- ☐ Studio-quality audio performance:
  - —Four channels: two longitudinal, two AFM
  - —Separate playback levels for each channel
  - —Low impedance audio monitor outputs for separate or mixed output
  - —Dolby C* noise reduction on longitudinal channels
- ☐ Multi-function hours meter
- ☐ Headphone jack with volume control

*Dolby C is a registered trademark of Dolby Laboratories Licensing Corp.



CVR-65 Recorder Specifications

		NTSC	NTSC	PAL/SECAM	PAL/SECAM
VIDEO		OXIDE TAPE	METAL PARTICLE TAPE	OXIDE TAPE	METAL PARTICLE TAPE
(Component In/Out)	Bandwidth, luminance	30 Hz to 4.1 MHz +0.5/−6.0 dB	30 Hz to 4.5 MHz +0.5/−3.0 dB	25 Hz to 4.0 MHz +0.5/−6.0 dB	25 Hz to 5.5 MHz +0.5/−3.0 dB
	Chrominance, R-Y/B-Y	30 Hz to 1.5 MHz +0.5/−3.0 dB	30 Hz to 1.5 MHz +0.5/−3.0 dB	25 Hz to 1.5 MHz +0.5/−3.0 dB	25 Hz to 1.5 MHz +0.5/−3.0 dB
	S/N Luminance	48 dB	51 dB	47 dB	48 dB
	Chrominance	50 dB	53 dB	45 dB	48 dB
	K-factor (2T pulse)	Less than 3%	Less than 2%	Less than 3%	Less than 1.5%
	LF Non-linearity Y	Less than 3%	Less than 2%	Less than 3%	Less than 3%
	C	N/A	N/A	Less than 4%	Less than 4%
	Chrominance/luminance Delay	Less than 20 nsec	Less than 20 nsec	Less than 20 nsec PAL Less than 50 nsec SECAM	Less than 20 nsec PAL Less than 50 nsec SECAM
AUDIO		LONGITUDINAL OXIDE TAPE	LONGITUDINAL METAL PARTICLE TAPE	AFM METAL PARTICLE TAPE	
	Frequency response	50 Hz to 15 kHz ±3 dB	50 Hz to 15 kHz 1/−2 dB	20 Hz to 20 kHz +0.5/−2.0 dB	
	S/N	50 dB (3% distortion level, without NR system)	54 dB (3% distortion level, without NR system)	N/A	
	Dynamic range	N/A	N/A	More than 85 dB	
	Phase difference	±20 degrees at 15 kHz	±20 degrees at 15 kHz	±10 degrees at 20 kHz	
	Distortion (1 kHz ref. level)	Less than 2%	Less than 1%	Less than 0.5%	
	Wow and flutter	Less than 0.10% rms	Less than 0.10% rms	N/A	
	Crosstalk	Less than −65 dB	Less than −65 dB	Less than −70 dB	
SIGNAL INPUTS		1.0V p-p ±0.3V			
SIGNAL OUTPUTS	Video 1 (75 Ohms)	1.0V p-p sync negative			
	Video 2 (75 Ohms)				
	Composite video	1.0V p-p sync negative			
	Non-composite video	0.714V p-p/NTSC		0.7V p-p/PAL/SECAM	
	Video 3 (75 Ohms)				
	Composite video	1.0V p-p sync negative (monitor out with character insertion)			
	Dub/component (75 Ohms)	(12-pin connector)			
	Luminance	1.0V p-p sync negative			
	Chrominance R-Y/B-Y	0.7V p-p (75% color bars)			
	Component (75 Ohms)	(3 BNC connector)			
	Y	1.0V p-p sync negative			
	R-Y/B-Y	0.7V p-p (100% color bars)			
	Audio Ch. 1/2/3/4				
	Monitor Ch. 1/3, Ch. 2/4	+4 dBm, 600 impedance balanced (150 Ohms load permissible)			
	Time code	2.2V p-p 600 Ohms, unbalanced			
PROCESSOR ADJUSTMENT RANGE	Video level	±3 dB			
	Chroma level	±3 dB			
	Set-up level/black level	0 to +15 IRE (NTSC) ± 110mV (PAL)			
	Hue/burst chroma phase	±15° (NTSC)			
	System SC phase	360° p-p			
	System sync phase	+3 to −1 μ sec			
	Chrominance/luminance delay	±50 nsec.			
GENERAL	Record/playback time	90 min./NTSC		100 min./PAL/SECAM	
	Shuttle time	Less than 3 min. with 90 min. cassette (±32X play speed)			
	Search speed, Shuttle	Still, 1/30, 1/10, 1/5, 1/2, 1, 2, 5, and 24 times normal forward and reverse			
	Jog	Frame-by-frame forward and reverse			
	Servo Lock	Less than 0.6 seconds from Stand-by mode			
	Tape speed	11.86 cm/sec/NTSC		10.15 cm/sec/PAL/SECAM	
	Dimensions	9.4" (237 mm) H × 16.8" (427 mm) W × 20.5" (520 mm) D			
	Weight	66 lb (30 kg.)			
	Temperature, Operating	5° to +40° C (41° F to 104° F)			
	Storage	−20°C to 60°C (−4°F to 140° F)			
	Humidity	Less than 80% RH			
	Power requirements	AC 90V to 265V, 48 to 64 Hz			
	Power consumption	175W			
	Supplied accessories	AC power cord, 12-pin dubbing cable, Extender Boards, RCC-5G, 9-pin remote control cable. Operation/maintenance manual			

Ampex reserves the right to make product and specification changes at any time without notice.

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